



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,760	10/29/2001	Takaaki Takeda	P/2291-107	8688

7590

01/03/2006

Steven I. Weisburd, Esq.  
Dickstein Shapiro Morin & Oshinsky LLP  
41st Floor  
1177 Avenue of the Americas  
New York, NY 10036-2714

EXAMINER

SIDDIQI, MOHAMMAD A

ART UNIT

PAPER NUMBER

2154

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/020,760	TAKEDA, TAKAAKI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mohammad A. Siddiqi	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-20 are presented for examination.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaio et al (6,625,156) (hereinafter Shaio) in view of Sufleta et al. (6,785,237).
4. As per claims 1 and 6, Shaio discloses a method and system for measuring quality of service (QoS) provided by a network, over which a one or more blocks of data each having at least source and destination addresses included therein are transferred (implementing QOS, col. 3, lines 10-27), the method comprising:

a) determining an ingress and an egress of the network based on the source and destination addresses of an inflow block of data (190, Fig. 9; col.3, lines 20-28);

b) extracting first feature information from the inflow block of data (col 3, lines 20-27) at the ingress, wherein the first feature information identifies the inflow (col 3, lines 20-27) block of data (col. 3, lines 20-28; col. 9, lines 47-51, extracts the control messages);

c) sending the first feature information from the ingress to the egress (Elements of Fig. 14; request/reply messages between egress and ingress, col. 8, lines 8-17; col 11, lines 35-67);

e) determining whether the first feature information extracted at the ingress matches the second feature information extracted at the egress (steps 222, 240, tag 238, Fig. 13; Fig. 12; col 11, lines 35-67; col 12, lines 1-9, finding short cut includes extracting and matching); and

f) when the first feature information matches the second feature information, measuring QoS based on a matching pair of the first feature information and the second feature information (elements Fig.11, col. 11, lines 15-27; col. 12, lines 49-60; Fig. 14, 264, 204).

Shaio does not explicitly disclose d) extracting second feature information from the an outflow block of data at the egress, wherein the second feature information identifies the outflow block of data;

However, Sufleta discloses d) extracting second feature information from the outflow block of data at the egress, wherein the second feature information identifies the outflow block of data (elements of fig 9; col 10, lines 52-67). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Shaio and Sufleta. The motivation would have been monitoring a Quality-of-Service parameters over the network and constantly matching the signatures supplied by the probes to confirm delivery and obtain packet travel time.

5. As per claims 2 and 7, claims are rejected for the same reasons as claim 1, above. In addition, Shaio discloses determining the egress to which the inflow block of data is forwarded from the ingress, based on the source and destination addresses of the inflow block of data; and wherein, at the egress, the steps e) and f) are performed (col. 12, lines 10-20; lines 29-35).

6. As per claims 3 and 8, Shaio fails to disclose stamping the inflow block of data with a first time stamp at the ingress; and stamping the outflow block of data with a second time stamp at the egress, wherein, in the step d) QoS is measured based on the first and second time stamps of the matching pair. However, Sufleta discloses stamping the inflow block of data with a first time stamp at the ingress; and stamping the outflow block of data with a

second time stamp at the egress, wherein, in the step d) QoS is measured based on the first and second time stamps of the matching pair (elements Fig. 9, col. 10, lines 53-67). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Shaio and Sufleta. The motivation would have been implementing Quality-of-Service data communications over a short-cut path through a routed network.

7. As per claims 4 and 9, the claim is rejected for the same reasons as claim 3, above. In addition Sufleta discloses registering the first and second feature information and respective registration times into a buffer; when a matching pair is found in the step e), deleting feature information corresponding to the matching pair from the buffer (920-930, Fig. 9, col. 11, lines 15-21); and when feature information is left in the buffer after a predetermined lifetime expires, processing a block of data identified by the feature information as being lost (905-935, Fig. 9, col 11, lines 15-21).

8. As per claims 5 and 10, claims are rejected for the same reasons as claim 1, above. In addition, Shaio discloses determining whether an inflow or outflow block of data is targeted for QoS measurement, wherein, only when the inflow or outflow block of data is targeted for QoS measurement the step

b) or d) is performed (col. 3, lines 10-28; Col. 9, lines 47-51, extracts the control messages).

9. As per claim 11, Shaio discloses a method for measuring quality of service (QoS) provided by a network, over which one or more blocks of data each having at least source and destination addressed included therein is transferred (implementing QOS, col. 3, lines 10-27), the method comprising:

At an ingress where a first block of data flows into the network,

a) extracting first feature data from the first block of data, wherein the first feature data identifies the first block of data (190, Fig. 9; col. 3, lines 20-28);

b) determining an egress where the first block of data is to flow from the network, based on source and destination addresses of the first block of data (steps 232, 230, 154, Fig. 13; Fig. 12; col 11, lines 35-67; col 12, lines 1-9, finding short cut includes extracting and matching);

c) sending the first feature data to the egress; at the egress (Elements of Fig. 14; request/reply messages between egress and ingress, col. 8, lines 8-17; col 11, lines 35-67),

d) receiving the first feature data from the ingress (Elements of Fig. 14; Col. 12, lines 10-15);

Shaio does not explicitly disclose e) extracting second feature data from a second block of data flowing from the network, wherein the second feature data identifies the second block of data;

f) comparing the second feature data with the first feature data to determine whether the second block of data is identical to the first block of data; and g) when it is determined that the second block of data is identical to the first block of data, computing QoS based on the first and second feature data. However, Sufleta discloses e) extracting second feature data from a second block of data flowing from the network, wherein the second feature data identifies the second block of data (elements of fig 9; col 10, lines 52-67);

f) comparing the second feature data with the first feature data to determine whether the second block of data is identical to the first block of data (elements of fig 9; col 10, lines 52-67; col 11, lines 1-21, generates quality of service parameters by extracting and matching); and

g) when it is determined that the second block of data is identical to the first block of data, computing QoS based on the first and second feature data (elements of fig 9; col 10, lines 52-67; col 11, lines 1-21, generates quality of service parameters by extracting and matching). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Shaio and Sufleta. The motivation



would have been monitoring a Quality-of-Service parameters over the network.

10. As per claim 12, the claim is rejected for the same reasons as claim 11, above. In addition, Shaio discloses in the step b), the egress is determined by referring to network configuration data indicating a correspondence between each ingress node and each egress node in the network (steps 232, 230, 154, Fig. 13; Fig. 12; col 11, lines 35-67; col 12, lines 1-9, finding short cut includes extracting and matching).

11. As per claim 13, the claim is rejected for the same reasons as claim 11, above. In addition, Shaio discloses the network configuration data further indicates a correspondence between each ingress node and each egress node via at least one via-point node in the network (col. 3, lines 20-28).

12. As per claim 14, the claim is rejected for the same reasons as claim 11, above. In addition, Sufleta discloses at each of the at least one via-point node, h) extracting third feature data from a third block of data passing through the via-point node, wherein the third feature data identifies the third block of data (col 5, lines 17-38; col 10, lines 52-67; col 11, lines 1-21);

i) determining an egress where the third block of data is to flow from the network, based on source and destination addresses of the third block of data (extracting, col 5, lines 17-38; col 10, lines 52-67; col 11, lines 1-21); and

j) sending the third feature data to the egress (col 5, lines 17-38; col 10, lines 52-67; col 11, lines 1-21).

13. As per claim 15, the claim is rejected for the same reasons as claim 11, above. In addition, Sufleta discloses at a via-point node, h) receiving the first feature data from the ingress; i) extracting third feature data from a third block of data passing through the via-point node, wherein the third feature data identifies the third block of data (extracting, elements of fig 9; col 5, lines 17-38; col 10, lines 52-67; col 11, lines 1-21);

j) comparing the third feature data with the first feature data to determine whether the third block of data is identical to the first block of data (extracting, elements of fig 9; col 5, lines 17-38; col 10, lines 52-67; col 11, lines 1-21); and

k) when it is determined that the third block of data is identical to the first block of data, computing QoS based on the first and third data feature (extracting, elements of fig 9; col 5, lines 17-38; col 10, lines 52-67; col 11,

lines 1-21).

14. As per claim 16, the claim is rejected for the same reasons as claim 11, above. In addition, Sufleta discloses at the egress, k) receiving the third feature data from each of the at least one via-point node (extracting, elements of fig 9; col 5, lines 17-38; col 10, lines 52-67; col 11, lines 1-21);

l) when it is determined that the second block of data is identical to the first block of data, comparing the third feature data with the first feature data to determine whether the third block of data is identical to the first block of data (extracting, elements of fig 9; col 5, lines 17-38; col 10, lines 52-67; col 11, lines 1-21); and m) when it is determined that the third block of data from each of the at least one via-point node is identical to the first block of data, computing QoS based on the first, second and third data feature (QOS , elements of fig 9; col 5, lines 17-38; col 10, lines 52-67; col 11, lines 1-21).

15. As per claim 17, the claim is rejected for the same reasons as claims 11-16, above.

16. As per claim 18, claim is rejected for the same reasons as claims 11-16, above.

17. As per claim 19, the claim is rejected for the same reasons as claims 11-16, above. In addition, Sufleta discloses a plurality of measuring probes connected to respective ones of a first edge node, a second edge node, and at least one via-point node, the measuring probes being interconnected to each other, wherein each of measuring probes connected to respective ones of the first and second edge nodes comprises (Elements of Fig 3, col 6, lines 51-64).

18. As per claim 20, the claim is rejected for the same reasons as claims 11 and 19, above. In addition, Shaio discloses the comparator first compares the third feature data with the second feature data stored in the first buffer and then the third feature data with the second feature data stored in the second buffer (Col. 8, lines 47-51).

### ***Response to Arguments***

19. Applicant's arguments filed 10/03/2005 have been fully considered but they are not persuasive, therefore rejections to claims 1-20 is maintained.

20. Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the

teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

**Argument:** Shaio does not teach extracting first feature information from the inflow block of data at the ingress, wherein the first feature information identifies the inflow block of data.

**Response:** Shaio teaches extracting (col 9, lines 47-53) first feature information from the inflow block of data (col 3, lines 20-27) at the ingress, wherein the first feature information identifies (Fig 8C of the instant application can only be interpreted as a data packet) the inflow (col 3, lines 20-27) block of data (fig 9, col. 3, lines 20-28; col. 9, lines 47-51, extracts the control messages).

Furthermore, Sufleta discloses d) extracting second feature information from the outflow block of data at the egress, wherein the second feature information identifies the outflow block of data (elements of fig 9; col 10, lines 52-67). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Shaio and Sufleta. The motivation would have been monitoring a Quality-of-

Service parameters over the network and constantly matching the signatures supplied by the probes to confirm delivery and obtain packet travel time.

### ***Conclusion***

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 6,490,296

U.S. Patent 6,876,653

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

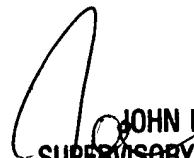
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad A. Siddiqi whose telephone number is (571) 272-3976. The examiner can normally be reached on Monday -Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAS

  
**JOHN FOLLANSBEE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**